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L4: Entry 15 of 24 File: USPT Nov 25, 1997

US-PAT-NO: 5690941
DOCUMENT-IDENTIFIER: US 5690941 A

TITLE: Molecules containing at least one peptide sequence carrying one or several epitopes characteristic of a protein produced by P. falciparum at the sporozoite stage and in the hepatocytes

DATE-ISSUED: November 25, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Druilhe; Pierre	Saint-Mande	N/A	N/A	FRX
Guerin-Marchand; Claudine	Paris	N/A	N/A	FRX

US-CL-CURRENT: 424/272.1; 424/185.1, 424/268.1, 435/69.3, 530/300, 530/350, 530/395

CLAIMS:

We claim:
1. A peptide having 10 to 87 amino acids of the following sequence:
Glu-Phe-Arg-Val-Ser-Thr-Ser-Asp-Thr-Pro-Gly-Gly-Asn-Glu-Ser-Ser-Ser-Ala-Ser-Pro-Asn-Leu-Ser-Gly-Ala-Arg-Glu-Lys-Lys-Asp-Glu-Lys-Glu-Ala-Ser-Glu-Gln-Gly-Glu-Glu-Ser-His-Lys-Lys-Glu-Asn-Ser-Gln-Glu-Ser-Ala-Asn-Gly-Lys-Asp-Asp-Val-Lys-Glu-Glu-Lys-Lys-Thr-Asn-Glu-Lys-Lys-Asp-Asp-Gly-Lys-Thr-Asp-Lys-Val-Gln-Glu-Lys-Val-Leu-Glu-Lys-Ser-Pro-Lys-Glu-Phe
which peptide is recognized by antibodies recognizing the sporozoite and hepatic stages of Plasmodium falciparum and is not recognized by antibodies recognizing the blood stage of Plasmodium falciparum.
2. The peptide according to claim 1, wherein said peptide comprises the 87 amino acids of said sequence.
3. The peptide according to claim 1, comprising the following sequence:
Ala-Arg-Glu-Lys-Lys-Asp-Glu-Lys-Glu-Ala-Ser-Glu-Gln-Gly-Glu-Glu-Ser-His-Lys-Lys-Glu-Asn-Ser-Gln-Glu-Ser-Ala.
4. The peptide according to claim 1, comprising the following sequence:
Asn-Gly-Lys-Asp-Asp-Val-Lys-Glu-Glu-Lys-Lys-Thr-Asn-Glu-Lys-Lys-Asp-Asp-Gly-Lys-Thr-Asp-Lys-Val-Gln-Glu-Lys-Val-Leu-Glu-Lys-Ser-Pro-Lys-Glu-Phe.
5.
5. An immunogenic composition comprising one or more peptides according to claim 1, and a pharmaceutically acceptable vehicle.
6. A composition capable of inhibiting the development of the sporozoite and hepatic stages of Plasmodium falciparum comprising a pharmaceutically effective amount of one or more peptides according to claim 1.
7. An in vitro diagnostic method for the detection of the presence or absence of antibodies indicative of malaria caused by Plasmodium falciparum, which bind with a peptide according to claim 1, to form an immune complex, comprising:
contacting a peptide according to claim 1 with a biological sample for a time and under conditions sufficient for said peptide and antibodies in the biological sample to form immune complex, and
detecting the presence or absence of immune complex.
8. A diagnostic kit for the detection of the presence or absence of antibodies indicative of malaria caused by Plasmodium falciparum, comprising:

a peptide according to claim 1;
a reagent to detect peptide-antibody immune complex;
a biological reference sample lacking antibodies that immunologically bind with said peptide; and
a comparison sample comprising antibodies which can specifically bind to said peptide;
wherein said peptide, reagent, biological reference sample, and comparison sample are present in an amount sufficient to perform said detection.
9. The diagnostic kit of claim 8, wherein the formation of immune complex is detected by employing immunological labels selected from the group consisting of radioisotopes, immunoenzymes, and immunofluorescent labels.

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L4: Entry 18 of 24 File: USPT Aug 24, 1993

US-PAT-NO: 5238836
DOCUMENT-IDENTIFIER: US 5238836 A

TITLE: Plasmodium falciparum merozoite antigen peptides

DATE-ISSUED: August 24, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Certa; Ulrich	Allschwil	N/A	N/A	CHX
Gentz; Reiner	Rheinfelden	N/A	N/A	DEX
Takacs; Bela	Aesch	N/A	N/A	CHX

US-CL-CURRENT: 435/252.3; 435/235.1, 435/252.33, 435/258.2, 435/320.1, 435/69.3, 530/350, 536/23.5

CLAIMS:

What is claimed is:
1. An isolated DNA sequence wherein said sequence is as follows: ##STR6##
2. An isolated DNA sequence wherein said sequence is as follows: ##STR7##
3. An isolated DNA sequence wherein said sequence is as follows: ##STR8##
4. An isolated DNA sequence wherein said sequence is as follows: ##STR9##
5. An isolated DNA sequence coding for the following amino acid sequence: ##STR10##
6. The DNA sequence of claim 5 wherein said sequence is directly linked and in proper reading frame with a DNA sequence coding for an affinity peptide residue.
7. An isolated DNA sequence coding for the following amino acid sequence: ##STR11##
8. The DNA sequence of claim 7 wherein said sequence is directly linked and in proper reading frame with a DNA sequence coding for an affinity peptide residue.
9. An isolated DNA sequence coding for the following amino acid sequence: ##STR12##
10. The DNA sequence of claim 9 wherein said sequence is directly linked and in proper reading frame with a DNA sequence coding for an affinity peptide residue.
11. A recombinant vector comprising the DNA sequence of claim 9, wherein said DNA sequence is operably linked to a promoter sequence which is capable of directing the expression of the DNA sequence in a host microorganism.
12. A microorganism transformed with the recombinant vector of claim 11.

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End of Result Set

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L4: Entry 24 of 24 File: USPT May 30, 1989

US-PAT-NO: 4835259
DOCUMENT-IDENTIFIER: US 4835259 A

TITLE: Merozoite surface glycoproteins

DATE-ISSUED: May 30, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Reese; Robert T.	San Diego	CA	N/A	N/A
Howard; Randall F.	San Diego	CA	N/A	N/A
Stanley; Harold A.	La Jolla	CA	N/A	N/A

US-CL-CURRENT: 530/395; 424/268.1, 530/388.6, 530/403, 530/413, 530/806, 530/820

CLAIMS:

We claim:
1. An essentially pure P. falciparum glycoprotein, which glycoprotein:
(a) is antigenic;
(b) has an isoelectric point of about 5.5;
(c) is present on the surface of the P. falciparum merozoite;
(d) includes glucosamine and mannose in its glycosyl groups;
(e) when obtained from the FVO and Geneva P. falciparium isolates exhibits a molecular weight of about 56,000 by sodium dodecyl sulfate-polyacrylamide gel electrophoresis and reacts with monoclonal antibodies produced from hybridoma ATCC HB 8938; and
(f) when obtained from the Honduras I/CDC, Indochina I, Kenya, and Tanzania I P. falciparum isolates exhibits a molecular weight of about 50,000 by sodium dodecyl sulfate-polyacrylamide gel electrophoresis and does not react with monoclonal antibodies produced by hybridoma ATCC HB 8938.
2. An essentially pure P. falciparum glycoprotein, which glycoprotein:
(a) is antigenic;
(b) has an isoelectric point of about 5.5;
(c) is present on the surface of the P. falciparum marozoite;
(d) includes glucosamine and mannose in its glycosyl groups;
(e) immunoreacts with antibodies produced by immunizing Aotus monkeys with the FVO P. falciparum isolate;
(f) has a molecular weight of about 56,000 by sodium dodecyl sulfate-polyacrylamide gel electrophoresis when isolated from the Geneva and FVO isolates of P. falciparum; and
(g) reacts with monoclonal antibodies produced from hybridoma ATCC HB 8938.
3. An essentially pure P. falciparum glycoprotein, which glycoprotein:
(a) is antigenic;
(b) has an isoelectric point of about 5.5;
(c) is present on the surface of the P. falciparum merozoite;
(d) includes glucosamine and mannose in its glycosyl groups;
(e) immunoreacts with antibodies produced from Aotus monkeys immunized with both the FVO and Honduras I/CDC P. falciparum isolates;
(f) exhibits a molecular weight of about 50,000 by sodium dodecyl

sulfate-polyacrylamide gel electrophoresis when isolated from Honduras I/CDC, Indochina I, Kenya and Tanzania I isolates; and
(g) does not react with monoclonal antibodies produced from hybridoma ATCC HB 9838.